

A FRAMEWORK FOR ETHICAL USAGE OF ICT SERVICES AT CYBER CAFE  
USING THEORY OF PLANNED BEHAVIOR



ZURIANI BT AHMAD ZUKARNAIN

UNIVERSITI UTARA MALAYSIA 2011

Handwritten notes in the bottom right corner, including the number "95.15" and some illegible scribbles.



# UUM CAS

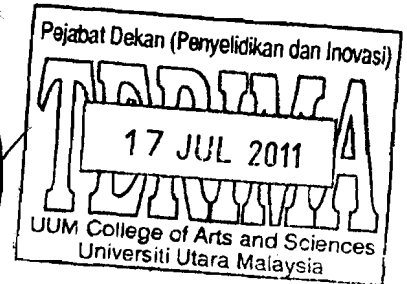
Universiti Utara Malaysia College of Arts and Sciences

## THESIS SUBMISSION

"KEDAH SEJAHTERA"

UUM/CAS/L-4

Date: 17/7/2011



### Dean (Awang Had Salleh Graduate School of Arts and Sciences)

UUM College of Arts & Sciences

Universiti Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman

Sir/Madam

### SUBMISSION OF THESIS

I ZURIANI BT AHMAD ZUKARNAIN, Matric No 91122  
a candidate of the programme of A FRAMEWORK <sup>PHD</sup> FOR ETHICAL USAGE OF  
hereby submit my Thesis A FRAMEWORK FOR ETHICAL USAGE OF  
ICT SERVICES AT CYBER CAFE USING THEORY OF PLANNED BEHAVIOR

(Candidate must submit three (3) bound copies one, (1) loose copy and one (1) soft copy in a CD to the Office of the Dean (Research & Graduate Studies), College of Arts & Sciences, Universiti Utara Malaysia).

Student Signature

### SUBMISSION OF THESIS (FOR OFFICE USE ONLY)

Recipient:

MOHD FOZI SALLEH

Signature:

**MOHD. FOZI SALLEH**  
Research Officer  
College of Arts and Sciences  
Universiti Utara Malaysia

College Official Stamp:

Date:

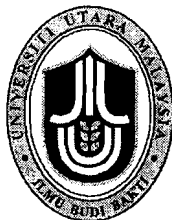
17/7/2011

**A FRAMEWORK FOR ETHICAL USAGE OF ICT SERVICES AT CYBER  
CAFE USING THEORY OF PLANNED BEHAVIOR**

**A Thesis submitted to the College of Arts and Sciences in full fulfillment of the  
requirements for the degree of Doctor of Philosophy Universiti Utara Malaysia**

**by  
Zuriani binti Ahmad Zukarnain**

**©2011, Zuriani**



**Kolej Sastera dan Sains**  
(UUM College of Arts and Sciences)  
**Universiti Utara Malaysia**

**PERAKUAN KERJA TESIS / DISERTASI**  
(Certification of thesis / dissertation)

Kami, yang bertandatangan, memperakukan bahawa  
(We, the undersigned, certify that)

**ZURIANI AHMAD ZUKARNAIN**

calon untuk Ijazah

PhD

(candidate for the degree of)

telah mengemukakan tesis / disertasi yang bertajuk:  
(has presented his/her thesis / dissertation of the following title):

**"A FRAMEWORK FOR ETHICAL USAGE OF ICT SERVICES AT CYBER CAFE USING  
THEORY OF PLANNED BEHAVIOR"**

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.  
(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan, sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada : **27Disember 2010**.

*That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:*

**December 27, 2010.**

Pengerusi Viva:  
(Chairman for Viva)

**Assoc. Prof. Dr. Najib Ahmad Marzuki**

Tandatangan  
(Signature)

Pemeriksa Luar:  
(External Examiner)

**Prof. Dr. Zawiyah Mohammad Yusof**

Tandatangan  
(Signature)

Pemeriksa Dalam:  
(Internal Examiner)

**Dr. Mohd Khairudin Kasiran**

Tandatangan  
(Signature)

Nama Penyelia/Penyelia-penyelia:  
(Name of Supervisor/Supervisors)

**Prof. Dr. Zulkhairi Md Dahalin**

Tandatangan  
(Signature)

Nama Penyelia/Penyelia-penyelia:  
(Name of Supervisor/Supervisors)

**Assoc. Prof. Dr. Huda Haji Ibrahim**

Tandatangan  
(Signature)

Tarikh:

(Date) **December 27, 2010**

## **PERMISSION TO USE**

In presenting this thesis in partial fulfillment of the requirements for a postgraduate degree from Universiti Utara Malaysia, I agree that the University Library may make it freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purpose may be granted by my supervisors or, in their absence by the Dean of the Awang Had Salleh Graduate School of Arts and Sciences. It is understood that any copying or publication or use of this thesis or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my thesis.

Requests for permission to copy or to make other use of materials in this thesis, in whole or in part, should be addressed to

Awang Had Salleh Graduate School of Arts and Sciences  
Universiti Utara Malaysia  
06010 UUM Sintok  
Kedah Darul Aman.

## ABSTRAK

Kafe siber memainkan peranan penting dalam menyediakan kemudahan komputer dan capaian Internet serta meningkatkan literasi komputer di kalangan komuniti di Malaysia, terutamanya kepada mereka yang tidak memiliki komputer di rumah. Walaupun penubuhan kafe siber membawa kebaikan dari sudut pandangan perniagaan dan akademik, namun ia turut menyumbang kepada masalah etika berkaitan penggunaan perkhidmatan ICT. Tujuan kajian ini adalah untuk membangunkan satu rangka kerja bagi penggunaan perkhidmatan ICT yang beretika di kafe siber. Kajian ini menggunakan kaedah penyelidikan kuantitatif dan kajian kes bahagian pertama melibatkan kaedah tinjauan untuk menentukan pemboleh ubah yang mempengaruhi niat tingkah laku pengguna terhadap penggunaan perkhidmatan ICT yang tidak beretika di kafe siber. Unit analisis yang terlibat adalah pengusaha kafe siber, pengguna kafe siber, badan berkuasa, ibu bapa dan komuniti. Bahagian kedua menggunakan kaedah pendekatan kajian kes untuk memeriksa dengan lanjut keberkesanan mekanisme kawalan melalui pelaksanaan perisian pemantauan. Kajian ini menggunakan Teori Tingkah Laku yang di Rencana (Theory of Planned Behavior) sebagai rangka kerja teoretikal kajian. Untuk mengkaji niat tingkah laku pengguna kafe siber, satu pemboleh ubah tambahan yang dikenali sebagai faktor luaran ditambah dalam rangka kerja konsep kajian ini. Keputusan kajian menunjukkan sikap, norma subjektif, persepsi pengawal tingkah laku dan faktor luaran mempunyai hubungan yang signifikan dengan niat tingkah laku pengguna kafe siber. Pengalaman, hak individu, rakan sebaya, guru, rakan rapat, rakaman litar tertutup, pencahayaan dan kebisingan dalam kafe siber terbukti mempengaruhi niat tingkah laku pengguna kafe siber untuk melaksanakan tingkah laku mereka. Berdasarkan kepada penemuan ini, satu rangka kerja bagi penggunaan perkhidmatan ICT yang beretika telah dicadangkan. Rangka kerja ini dapat diguna oleh pengusaha kafe siber, pihak berkuasa dan pembuat polisi dalam merancang dan melaksana strategi dan polisi bagi operasi kafe siber di Malaysia.

## **ABSTRACT**

Cyber cafes play an important role in providing computer facilities and Internet access besides improving ICT literacy among the communities in Malaysia, especially to those who do not have computer at home. Though the establishments of cyber cafe bring various advantages particularly from the business and the academic views, it also contributes to ethical problems regarding ICT services usage. The ultimate aim of the study is to develop a framework for an ethical usage of ICT services at cyber cafe. This study used quantitative and case study research approaches, where the first part involved a survey method to determine the variables that influence the user's behavioral intention on unethical usage of ICT services at cyber cafe. The units of analysis are cyber cafe operators, cyber cafe users, regulatory bodies, parents and community. The second part used a case study approach to further examine the effectiveness of the control mechanism through the implementation of monitoring software. This study used Theory of Planned Behavior as the theoretical framework of the study. In order to examine the behavioral intention of cyber cafe users, an additional variable known as external factor has been added in the conceptual framework of this study. The result of this study found that attitude, subjective norms, perceived behavioral control and external factors have a significant relationship with behavioral intention of cyber cafe users. Experience, individual rights, peers, teachers, close friends, CC TV, lighting in the cyber cafe and noise in the cyber cafe are proven to have influenced behavioral intention of cyber cafe users to perform their actions. Based on the findings, a framework for an ethical usage of ICT services was developed. This framework could be used by cyber cafe operators, authorities, and policy makers in planning and implementing any strategies and policies for cyber cafe operation in Malaysia.

## **ACKNOWLEDGEMENTS**

Alhamdulillah, God has always helped me throughout my life. My sincerest gratefulness, thanks and the utmost appreciation go to everyone that has helped me on my study. This thesis would not have been possible without the enduring love and support from many people.

First of all, I would like to express my deepest thanks to both my supervisors, Prof. Dr. Zulkhairi bin Md Dahalin and Prof. Madya Dr. Huda bt Ibrahim who have encouraged me to complete this study. They are mentors of my academic life, constantly showed me support, given me their time to listen to me, do not only provide me intellectual advice but also show me how to approach the knowledge. I was fortunate to work with them. Also, a big appreciation to Pn Nor Iadah bt Yusop, Pn Rafidah bt Abd Razak, Prof. Madya Dr. Wan Rozaini Sheikh Othman, Pn Zahurin Mat Aji and Pn Nafishah Osman who have shared their knowledge and support.

Grateful thank to Scholarship Division, Ministry of Higher Education and Universiti Teknologi MARA (UiTM) for the scholarship and study leave. I would like to express my sincere gratitude to all my family members on the enduring love and support. Deepest appreciation goes to my husband Mohd Khalil b. Jusoh. He is the most incredible friend and supporter in my life, always being there for me throughout this journey. His tremendous love and sacrifice has made this possible. Last but not least, my biggest love to my three sons, Ahmad Afiq, Ahmad Amjad and Ahmad Aqil who are my source of inspiration.



## **LIST OF TABLES**

Table	Page
2.1 Related Research in Computer and Information Ethics	55
2.2 The Number of Cyber Café in Malaysia	59
3.1 Proposed Adequate Sample Size	87
3.2 The Ranking of Unethical Activities	93
3.3 Reliability of the Questionnaire	97
3.4 Reliability for the Pilot Study 1	100
3.5 Reliability for the Pilot Study 2	101
3.6 Reliability for the Pilot Study 3	102
3.7 Summary of the Survey	104
4.1 Types of Activities Performed in Cyber cafés	116
4.2 Attitude on Viewing Pornographic Pictures	117
4.3 Attitude on Browsing Pornographic Website by Friends	117
4.4 Attitude on the Right to Perform Online Activity	118
4.5 Attitude on Belief System	118
4.6 Attitude on Moral Obligation	119
4.7 Perception of Friends on Sending Chain e-mail	120
4.8 Perception of Parents on Wasting Time at Cyber cafés	120
4.9 Perception of Closed Friends on Browsing Pornographic Websites	121
4.10 Perception of Teachers on Sending Sensational News	121
4.11 CC TV and Impersonation on Internet	122
4.12 Rules and Application Downloading	123
4.13 Monitoring by Cyber café Staff and not Playing Computer Game	123
4.14 Religious Teacher's Advice and Wasting Time at Cyber café	124

4.15 Low Lighting and Chatting	125
4.16 Computers Arrangement and Accessing Pornographic Websites	125
4.17 Noises and Plying Computer Games	126
4.18 Location of the Cyber café and Users' Behavior	126
4.19 Intention to Browse Pornographic Website	127
4.20 Intention to Involve in online Gambling	127
4.21 Sending Chain e-mail	128
4.22 Crosstabulation Variables with Gender	130
4.23 The Regression Model	136
4.24 The Regression Coefficients	138
4.25 The Regression Coefficients after Data Cleaning	141
4.26 Summary of the Result	142
4.27 Services Offered in Cyber café	146
4.28 Facilities Provided in Cyber café	146
4.29 Common Rules in Cyber café	149
4.30 Action Taken on Violation of Rules	150
4.31 Suggestions to Improve Cyber café Operation	151
4.32 Profiles for Parents and the Community	153
4.33 Views on Cyber café Usage among Youth	155
4.34 Opinion on Current Operating Time	155
4.35 Current Supervision Using Software	156
4.36 Opinion on Current Supervision by Regulatory Bodies	156
4.37 Opinions on Parents and the Community on Current Roles of Cyber café	158
4.38 Views on Suitable Operating Time and Supervision Method	158

4.39 Method for Monitoring and Supervision	159
4.40 Opinion of Parents and the Community on the Roles of Cyber café	160
4.41 Opinion of Parents and the Community on What Cyber café Can Do to Their Children	160
4.42 Lists of Suggestions to Better Control and Monitor the Cyber café	161
4.43 Agencies Involved in Enforcement of Cyber café	165
4.44 Agencies Involved in Monitoring of Cyber café	167
4.45 Lists of Suggestions by Cyber café Operator	168
4.46 Lists of Suggestions by Parents and the Community	169
4.47 The Number of Websites Hits During the First Two Weeks	171
4.48 The Number of Websites Hits after Two Weeks	173
4.49 The differences after Implementing Pop up Message	174
5.1 The Relationship Between Ethical Foundation and Ethical Dimension	207

## **LIST OF FIGURES**

Figure	Page
1.1 Overall Idea of Study	9
1.2 Theory of Planned Behavior	20
1.3 Inputs, Activities and Deliverables of Phase 1	23
1.4 Inputs, Activities and Deliverables of Phase 2	24
1.5 Inputs, Activities and Deliverables of Phase 3	25
1.6 Inputs, Activities and Deliverables of Phase 4	26
2.1 Discipline of Philosophy	38
2.2 Moral Philosophy	41
2.3 On-line Offences	47
2.4 Current Scenario Regarding Cyber café and Vision 2020	68
3.1 The Research Process	72
3.2 Technology Acceptance Model (TAM)	74
3.3 Theory of Reasoned Action (TRA)	75
3.4 Theory of Planned Behavior (TPB)	76
3.5 The Conceptual Framework	79
3.6 The Schematic View of the Conceptual Framework	84
3.7 Questionnaire and the Unit of Analysis	94
3.8 The Layout in the Cyber café A	108
4.1 Independent t-test	111
4.2 Result for Normality Test	113
4.3 Correlation Between Attitude and Behavioral Intention	132
4.4 Correlation Between Subjective Norms and Behavioral Intention	133
4.5 Correlation Between Perceived Behavioral Control and	134

Behavioral Intention	
4.6 Correlation Between External Factors and Behavioral Intention	135
4.7 The Mahanalobis Distance Score	139
4.8 The Revised Theory of Planned Behavior with Significant Factors	143
4.9 Mechanisms of Cyber café Controlling and Monitoring	147
4.10 Aspects of Cyber café Controlling and Monitoring	148
4.11 Frequency of Cyber café Controlling and Monitoring	148
4.12 Pop up Message From K 9 Web Protection	172
5.1 The Revised Theory	203
5.2 A Framework for Ethical Usage of ICT Services at Cyber café	209
5.3 The Relationship between Ethical Foundation with Behavioral Dimension	213
5.4 The Relationship between Ethical Foundation with Monitoring Dimension	215
5.5 The Relationship between Ethical Foundation with Physical Dimension	217
5.6 The Relationship between Ethical Foundation with Implementation Dimension	218

## **LIST OF ABBREVIATION**

ICT	Information Communication Technology
NITC	National Information Technology Council
NITA	National Information Technology Agenda
PC	Personal Computer
EPF	Employee's Personal Fund
MCMC	Malaysian Communication and Multimedia Center
TCs	Telecenters
MID	Medan Info Desa
PID	Pusat Internet Desa
CMA	Communications Multimedia Act
SSM	Suruhanjaya Syarikat Malaysia (Companies Commissions of Malaysia)
TPB	Theory of Planned Behavior
USA	United State of Amerika
ACM	Association for Computer Machinery
IS	Information System
USD	United State Dollar
IT	Information Technology
USJ	United Subang Jaya
HUKM	Hospital Universiti Kebangsaan Malaysia
NISER	National Information Security Emergency Response
TAM	Technology Acceptance Model
TRA	Theory of Reasoned Action
CC TV	Closed Circuit Television System

COLGIS	College of Law, Government and International Studies
UUM	Universiti Utara Malaysia
SPSS	Statistical Package for Social Science
CC	Cyber cafe

## TABLE OF CONTENTS

	Page
PERMISSION TO USE .....	I
ABSTRAK (BAHASA MALAYSIA) .....	II
ABSTRACT (ENGLISH) .....	III
ACKNOWLEDGMENTS .....	IV
LIST OF TABLES .....	V
LIST OF FIGURES .....	VIII
LIST OF ABBREVIATION .....	X

### CHAPTER ONE: INTRODUCTION

1.0	Introduction.....	1
1.1	Background of Study.....	2
	1.1.1 Ethical Issues Related to ICT Usage in Cyber Cafe .....	4
1.2	Problem Statement .....	10
1.3	Research Questions .....	15
1.4	Research Objectives .....	16
1.5	Research Scope .....	17
1.6	Unit of Analysis .....	17
1.7	Theoretical Framework .....	18
1.8	Operational Definition .....	21
1.9	General Research Framework .....	22
1.10	Contribution of Study .....	27
1.11	Outline of the Thesis .....	28

### CHAPTER TWO: LITERATURE REVIEW

2.0	Introduction.....	30
2.1	ICT in Malaysia .....	30
	2.1.1 Public Internet Access Center .....	33
	2.1.2 Non Profit Public Internet Access Center .....	34
	2.1.3 Profit Based Public Internet Access Center .....	35
2.2	Moral Philosophy: Ethics.....	37
	2.2.1 Definitions of Ethics.....	39
	2.2.2 Components of Ethics.....	41
2.3	History of Computer Ethics.....	42
	2.3.1 Definition of Computer Ethics.....	44
	2.3.2 Cyber Ethics .....	45
2.4	The Cyber Law Act in Malaysia .....	48
	2.4.1 The Copyright (Amendment) Act 1997 .....	48
	2.4.2 The Digital Signature Act 1997 .....	49
	2.4.3 The Computer Crime Act 1997 .....	49
	2.4.4 The Telemedicine Act 1997 .....	50



2.4.5	The Communication and Multimedia Act 1998 .....	51
2.5	Malaysian Communications and Multimedia Commission .....	52
2.6	Unethical Usage of Computer and Internet .....	53
2.7	Concepts and Definitions of Cyber Cafe .....	57
2.7.1	Cyber Cafe in Malaysia .....	58
2.7.2	Research Regarding Cyber Cafe .....	60
2.7.3	Ethical Issues Related to ICT Usage in Cyber Cafe.....	64
2.8	Summary .....	68

### **CHAPTER THREE: RESEARCH METHODS**

3.0	Introduction.....	70
3.1	Overall Research Process.....	70
3.2	Conceptual Framework.....	73
3.2.1	Technology Acceptance Model (TAM) .....	73
3.2.2	Theory of Reasoned Action (TRA) .....	74
3.2.3	Theory of Planned Behavior (TPB) .....	75
3.3	Hypothesis Formulation .....	80
3.3.1	The Dependent Variable.....	80
3.3.2	The Independent Variable.....	80
3.3.2.1	Attitude.....	81
3.3.2.2	Subjective Norms.....	82
3.3.2.3	Perceived Behavioral Control.....	82
3.3.2.4	External Factors.....	83
3.4	Data Collection Technique.....	85
3.4.1	Survey.....	85
3.4.1.1	Justification of Choosing Survey Method.....	86
3.4.2	Case Study.....	88
3.4.2.1	Justification of Using Case Study.....	84
3.4.3	Research Population and Sample.....	89
3.5	Preliminary Data Collection: Initial Survey.....	91
3.6	Questionnaire Design .....	93
3.6.1	Reliability and Validity.....	96
3.6.1.1	Reliability of Questionnaire.....	96
3.6.1.2	Increasing Reliability.....	97
3.6.2	Validation of Questionnaire.....	98
3.7	Pilot Study.....	99
3.8	The Survey of the Study .....	102
3.9	Data Analysis.....	105
3.10	Control Mechanism Using Monitoring Software.....	105
3.10.1	The Selection of Cyber Cafe.....	106
3.10.1.1	Profile of Cyber Cafe A.....	107
3.10.2	K9 Web Protection Software.....	108
3.11	Final Validation.....	109
3.12	Summary .....	109

## CHAPTER FOUR: FINDINGS AND RESULTS

4.0	Introduction .....	110
4.1	Cyber Cafe User .....	110
4.1.1	Homogeneity of the Sample .....	111
4.1.2	Normality .....	112
4.1.3	Demography .....	114
4.1.4	Computer and Internet Usage .....	115
4.1.4.1	Pattern of Cyber Cafe Usage.....	115
4.1.5	Factors that Influence Behavior of Cyber Cafe User.....	116
4.1.5.1	Attitude.....	116
4.1.5.2	Subjective Norms.....	119
4.1.5.3	Perceived Behavioral Control .....	122
4.1.5.4	External Factors .....	124
4.1.5.5	Behavioral Intention.....	127
4.1.6	Cross Tabulation .....	128
4.1.6.1	Variable and Gender .....	128
4.1.6.2	Behavioral Intentions with Qualification .....	130
4.1.7	Hypothesis Testing: Correlation Analysis .....	131
4.1.7.1	Attitude and Behavioral Intention .....	132
4.1.7.2	Subjective Norms and Behavioral Intention .....	133
4.1.7.3	Perceived Behavioral Control and Behavioral Intention.....	134
4.1.7.4	External Factors and Behavioral Intention .....	135
4.1.8	Regression Analysis .....	136
4.1.9	Data Clearance .....	138
4.1.9.1	Regression Model after Data Clearance .....	140
4.1.10	Summary of the Result .....	141
4.1.11	The Revised Theory of Planned Behavior .....	143
4.2	Cyber Cafe Operators .....	144
4.2.1	Profile of Cyber Cafes .....	144
4.2.2	Cyber Cafe Operation .....	145
4.2.3	Cyber Cafe's Controlling and Monitoring Mechanism .....	147
4.2.4	Rules Violated by Users .....	149
4.2.5	Challenges Faced by Operators .....	150
4.3	Parents and Community .....	152
4.3.1	Profile of Parents and the Community.....	152
4.3.2	Parent's Opinion on Cyber Cafe .....	153
4.3.3	Views on Cyber Cafe Usage .....	154
4.3.4	Current Operating Time and Monitoring .....	155
4.3.5	Current Roles of Cyber Cafe .....	157
4.3.6	Choices of Suitable Operation Time .....	158
4.3.7	Choices of Methods for Monitoring.....	159
4.3.8	Roles of Cyber Cafe in Promoting ICT Literacy .....	159
4.3.9	Suggestion How to Better Control .....	161

**CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS**

6.0	Introduction .....	220
6.1	Research Question of the Study .....	220
	6.1.1 Research Question 1: What are the Factors that Influence Unethical Activities in Cyber Cafe .....	220
	6.1.2 Research Question 2: Why Unethical Activities Occur in Cyber Cafe .....	221
	6.1.3 What are the Mechanism can be Used to Control the Unethical Usage of ICT Services in Cyber Cafe .....	223
6.2	Research Objective Achieved .....	226
	6.2.1 Sub objective 1: To Examine the Factors that Influence Cyber Cafe Users to Perform Unethical Behaviour while Using ICT Services at Cyber Cafe.....	227
	6.2.2 Sub objective 2: To identify the Responsibilities of the Cyber Cafe Operators that Ensure Ethical Usage of ICT Services among Cyber Cafe Users .....	228
	6.2.3 Sub objective 3: To Determine the Roles of Regulatory Bodies in Monitoring and Controlling Cyber Cafe Operation .....	231
	6.2.4 Sub objective 4: To Obtain Opinion from Parents and the Community Regarding Cyber Cafe Operation .....	232
	6.2.5 Sub objective 5: To Determine the Effectiveness of the Control Mechanism of ICT Usage at Cyber Cafe Through the Implementation of Monitoring Software.....	232
6.3	Limitation of Study.....	233
6.4	Recommendation for Future Research .....	235
6.5	Summary and Conclusion .....	237
	REFERENCES .....	239
	LIST OF ACADEMIC ACHIEVEMENT .....	252
	APPENDIX 1: Questionnaire for Initial Survey.....	253
	APPENDIX 2: Questionnaire for Cyber Cafe Operator .....	256
	APPENDIX 3: Questionnaire for Cyber Cafe User .....	258
	APPENDIX 4: Questionnaire for Regulatory Bodies .....	262
	APPENDIX 5: Questionnaire for Parents and the Community .....	264
	APPENDIX 6: K9 Web Protection .....	269
	APPENDIX 7: Chi Square Table .....	274
	APPENDIX 8: Garis Panduan Mengawal Perniagaan Pusat Siber dan Cyber Café .....	275
	APPENDIX 9: Akta Kerajaan Tempatan (1976) .....	280

# **CHAPTER 1**

## **INTRODUCTION**

### **1.0 Introduction**

This study falls under the area of cyber ethics, focuses on the ethical usage of Information and Communication Technology (ICT) services at public Internet access centers. Chapter one starts with an explanation on computer ethics and unethical usage of ICT services. A brief description on ethical issues regarding ICT usage focus on cyber cafe is then presented as the problem of the research, followed with the research questions, objectives, scope, theoretical framework, operational definition, contribution, and finally the research approach and methodology. The purpose of the study is to develop a framework for an ethical usage of ICT services at public Internet access centers specifically the cyber cafe.

Misuse of ICT service may lead to a lot of ethical problems. Practicing good cyber ethics in a long term is expected to reduce the misuse of ICT services and promotes the use of ICT in safe and responsible ways. Ethical usage of ICT services is an important issue to generate knowledge based society and finally achieving Malaysian Vision 2020. Next section will discuss in details on the subject of study.

The contents of  
the thesis is for  
internal user  
only

## REFERENCES

- Adeel, K. (2007). *Impact of Internet on Society - Pakistan Community*. Lahore: National University of Computer and Emerging Science.
- Adomi, E. E., Omodeko, F. S., & Otolu, P. U. (2004). The Use of Cybercafe at Delta State University, Abraka, Nigeria. *Library Hi Tech*, 22(4), 383-388.
- Afaghzadeh, S. (2009). *Learner's Intentions to Continue Use of E-Learning Technologies*. Unpublished Master Thesis, Lulea University of Technology.
- Ahmad, M. R. (2008). *Exemplary Cybercafe: MCMC*.
- Ahmad Nasir Mohd Zin & Zahari Yunos. (2005, 12 July 2005). Mitigating Negative Content on The Net. *The Star In Tech*.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Decision Process*, 50(2), 179-211.
- Alam, S. S., Abdullah, Z., & Ahsan, N. (2009). Cyber Cafe Usage in Malaysia: An Explatory Study. *Journal of Internet Banking and Commerce*, 14(1).
- Alhabsyi, S. M. S. M. (2004). Bridging Digital Divide, Planning and Implementation Issues in Malaysia. [A Newsletter of IFIP Working]
- Alhaiou, T. (2009). How the Implementation of E-CRM Enhance E-Loyalty at Different Adoption Stages of Transactional Cycle? An Empirical Study of Mobile Commerce Website in UK. Unpublished PhD Symposium. Brunel Business School.
- Ali, M. (2009). *Protecting Children in Cyberspace: MPRA*.
- Alliance, I. I. P. (2006). *2006 Special 301 Report: Malaysia: International Intellectual Property Alliance*
- Alqasem, A. M. (2010). Concepts of Moral Values in Islam. *Journal*. Retrieved 15 November 2010 from <http://musaad.wordpress.com/islam/concept>
- Andrew (2003). Learn How To Nurture A Smarter Kid. *Journal*, 1(5). Retrieved 23 August 2009 from <http://www.bariny-child.com>
- Ariffin, T. F. T., Nordin, H., & Karim, A. M. A. (2008). What Predicts Attitudes Toward Computer? *The Malaysian Education Deans' Council Journal*, 2(9).
- Aware, B. W. (2007). Internet Addiction. *Journal*. Retrieved 4 Julai 2009 from <http://www.netaddiction.com/>

- Azimat, M. B. (2009). Cyberethics (Information System Ethics). *Journal*. Retrieved 6 January 2010 from <http://articles.business-man.biz/ethics/7/cyberethics-information-system>
- Bagchi, K., & Udo, G. (2003). An Analysis of the Growth of Computer and Internet Security Breaches. *Communications of The Association for Information Systems*, 12, 684-700.
- Barnard, A., & Corne de Ridder, L. P. (2001). *Teaching Computer Ethics as Part of Computer Science and Information System*.
- Batool, S. H., & Mahmood, K. (2010). Entertainment, Communication or Academic Use? A Survey of Internat Cafe Users in Lahore, Pakistan. *Information Development*, 26(141).
- Benbasat, I., Goldstein, D. K., & Mead, M. (1987). The Case Research Strategy in Studies Information Systems. *MIS Quarterly*, 11(3).
- Bhatti, T. (2007). Exploring Factors Influencing the Adoption of Mobile Commerce. *Journal of Internet Banking and Commerce*, 12(3).
- Bill, D. T. (2003). *Contributing Influences on an Individual's Attitude Towards a New Technology in the Workplace*.: Liquid Knowledge Group, Ltd.
- Bioethics. (2008). Retrieved 4 July 2008, from [http://atheism.about.com/od/Bioethics/Bioethics\\_Ethics\\_and\\_Morality\\_of\\_Medicine\\_and\\_Biology](http://atheism.about.com/od/Bioethics/Bioethics_Ethics_and_Morality_of_Medicine_and_Biology)
- Bolong, J. B. (2006). *Social Cohesiveness of Virtual Community and Interpersonal Relationship Through Computer Mediated Communication*. Universiti Putra Malaysia, Selangor.
- Borgatti, S. p. (1999). Elements of Theoretical Framework (Publication. Retrieved 12 July 2007: <http://www.analytictech.com/mb313/index.html>
- Bourgonjon, J., Valcke, M., Soetaert, R., & Schellens, T. (2009). *Exploring the Acceptance of Video Games in the Classroom by Secondary School Students*. Paper presented at the 17th International Conference on Computers in Education, Hong Kong.
- Bowyer, K. W. (2001). *Ethics And Computing* (Second Edition ed.): IEEE Press Marketing, New York.
- Brace, N., Kemp, R., & Snelgar, R. (2006). *SPSS for Psychologist*: Routledge.

- Brey, P. (2006). Evaluating the Social and Cultural Implications of the Internet. *Computers and Society*, 36(3), 41-48.
- Bynum, T. W. (2000). The Foundation of Computer Ethics. *Computer and Society*.
- Bynum, T. W. (2001). Computer Ethics: Its Birth and Its Future. *Ethics and Information Technology*, 3, 109 - 112.
- Byrne. (2001). *Structural Equation Modelling with AMOS: basic Concepts, Applications and Programming*. New Jersey.
- Charlesworth, M. (2005). *An investigation of an undergraduate Course Module on the ethical Aspects of Information Systems*. Unpublished Master of Commerce, Rhodes University.
- Chiang, L., & Lee, B.-Y. (2008). User's Perceptions of Computer Ethics in Taiwan Publication. Retrieved 8 July 2009: <http://www.libnsu.edu/theses/available/edt-12042008/unretricted/edt.pdf>
- Ching, L. S. (2002). *Impacts of Internet on Youths Peer Relationship*. Unpublished Master of Science, University of Hong Kong.
- Cohen, J., Ding, Y., Lesage, C., & Stolowy, H. (2008). *The Role of Managers, Behavior in Corporate Fraud*. Retrieved 3 Disember 2008 from <http://www.hec.fr/>
- Cole, R. D. (2005). Memo To telecentre Planners. *The Electronic Journal on Information Systems in Developing Countries*, 21(1), 1-13.
- Corbetta, P., & Patrick, B. (2003). *Social Research: Theory, Methods and Techniques*. California: Sage Publications.
- Computer Ethics. (2008). Retrieved 6 Mei 2008, from [http://en.wikipedia.org/wiki/Computer\\_ethics](http://en.wikipedia.org/wiki/Computer_ethics)
- Corbetta, P., & Patrick, B. (2003). *Social Research: Theory, Methods and Techniques*. London: Sage Publications.
- Cormack, B. M., & Hill, E. (1997). *Conducting a Survey. The SPSS Workbook*. London: International Thompson Bussines Press.
- Cormack, D. F. S. (2000). *The Research Process in Nursing*. Oxford, UK: Blackwell Publishing
- Coward, C., Gomez, R., & Ambikar, R. (2008, 10-14 August). *Libraries, Telecentres and Cybercafes: A Study of Public Access Venues Around the World*. Paper presented at the World Library and Information Congress, Quebec.



- Dawson, C. (2002). *Practical Research Methods*. Oxford, UK: How To Books Ltd.
- Delgadillo, K., Gomez, R., & Stall, K. (2002). *Community Telecentres For Development*: IDRC Canada.
- DeLissa, R. L. (2000). *Rational For Computer Ethics Policies And Model Policy For The North Carolina Community College System*. Unpublished PhD Thesis. Regent University.
- DevNet. (2007). *Guyana Public Internet Access Survey*. Guyana: DevNet Trust Fund.
- Doyle, J. K. (2008, 8 August). Introduction to Survey Methodology and Design. Retrieved 8 August, 2008, from [http://www.sysurvey.com/tips/introduction\\_to\\_survey.htm](http://www.sysurvey.com/tips/introduction_to_survey.htm)
- Edmunson, M. (2008). Ethics And ICT. *Journal*. Retrieved 6 January 2009 from [www.ictclub.org.uk/articles/Ethics\\_and\\_ICT.html](http://www.ictclub.org.uk/articles/Ethics_and_ICT.html)
- Ekonomi, U. P. (2001). *Rancangan Malaysia Kelapan (2001 - 2005)*.
- Ekonomi, U. P. (2006). *Rancangan Malaysia Kesembilan (2006 – 2010)*.
- Engaging in Cyber (Internet) Cafe. (2006). Retrieved 8 August 2007, from <http://www.central-mosque.com/fiqh/main.html>
- Environment Ethics. (2008, 2 July 2008). Retrieved 4 July 2008, from [http://en.wikipedia.org/wiki/Environmental\\_ethics](http://en.wikipedia.org/wiki/Environmental_ethics)
- Ethics. (2006). from <http://www.thefreedictionary.com/ethics>
- Ethics. (2008). Retrieved 15 Jun 2008, from <http://en.wikipedia.org/wiki/Ethics>
- Ethics. (2008). Retrieved 15 Jun 2008, from <http://www.merriam-webster.com/dictionary/ethics>
- Fah, L. Y., & Hoon, K. C. (2008). *Pengenalan Kepada Analisis Statistik dalam Penyelidikan Sains Sosial Siri 2*. Kuala Lumpur: Penerbit Venton.
- Fang, Y. S. (2006). *Researching the Development of Adolescent Self-identity Through Internet Games: A Study of Twelve Youth's Experience in Internet Cafes*. National Sun Yat-Sen University.
- Fauzan Nordin, Rohani Othman. (2002). Internet Usage Among Users of Cyber Cafes In Moving Towards Knowledge Society. *Library Malaysia*.

- Ferlander, S. (2007). Social Capital And Community Building Through the Internet: A Swedish Case Study in a Disadvantage Suburban Area. *Sociological Research Online*, 12.
- Ferrell, O. C., & Gresham, L. G. (1985). A Contingency Framework for Understanding Ethical Decision Making in Marketing. *Journal of Marketing*, 49(Summer 1985), 87-96.
- Ferlander, S. (2007). Social Capital And Community Building Through the Internet: A Swedish Case Study in a Disadvantage Suburban Area. *Sociological Research Online*, 12.
- Fisher, J. (2006). The Internet Encyclopedia of Philosophy. Retrieved 15 Jun, 2008, from <http://www.iep.utm.edu/e/ethics.htm>
- Floridi, L. (1998). *Information Ethics: On the Philosophical Foundation of Computer Ethics*. Paper presented at the The Fourth International Conference on Ethical Issues of Information Technology, Netherlands.
- Flower, N. (2002). Ethical Decision Making. from <http://www.flowers-mangs.org/resume/writing%20samples/ethics.doc>
- Fodor, J. L. (1994). CyberEthics. *Proceeding Ethics in Computer Age*. pp 180-187.
- Furuholt, B., Kristiansen, S., & Wahid, F. (2005). *Information Dissemination In A Developing Society: Internet Cafe Users In Indonesia* (Vol. 22).
- Garson, D. (2002). *Guide to Writing Empirical Papers, Thesis and Dissertation*. New York: Marcel Dekker
- Gay, L. R., & Airsian, P. W. (2002). *Educational Research: Competencies for Analysis and Application*: Prentice Hall.
- Gilbert, J. (2001). *Leveraging Effective ICT Strategies for Sustainable Development*. Kuala Lumpur.
- Gitta, S., & Ikoja-Odongo, J. R. (2003). The Impact of Cybercafes on Information Services in Uganda. *First Monday*, 8(4).
- Gotterban, D. (2000). Cyber Ethics Considered Harmful.
- Glasow, P. A. (2005). *Fundamentals of Survey Research Methodology*. Virginia: McLean
- Goodman, J., & Rounthwaite, R. (2004). *Stopping Outgoing Spam*. Paper presented at the Conference on Electronic Commerce, New York, USA.

- Gotschi, E., Vogel, S., & Lindenthal, T. (2007). *High School Students' Attitudes and Behavior Towards Organic Products: Survey Result From Vienna*: University of Natural Resources and Applied Life Sciences, Vienna.
- Group37. (2004). *The impact of Cyber Cafe on Secondary School students in Hong Kong*: University of Hong Kong
- H.Moor, J. (1985). What is Computer Ethics. *Metaphilosophy*, 16(4).
- Haines, R., & Leonard, L. N. K. (2004). *Influences of Different Ethical Issues on Ethical Decision-Making in an IT Context*. Paper presented at the 37th Hawii International Conference on System Sciences, Hawaii.
- Hair, D. O., & Kreps, G. L. (1990). *Applied Communication Theory and Research*. New Jersey: Mc Graw Hill
- Hall, & Hamilton. (1993). Integration of Ethical Issues Into the MIS Curriculum. *Journal of Computer Information System*.
- Harris, R. (2007). *Telecentre 2.0 Beyond Piloting Telecentres*: APDIP.
- Harris, R. W. (2007). *Telecentre Evaluation in the Malaysian Context*. Paper presented at the 5th International Conference on IT in Asia.
- Haselhuhn, M. P., Pope, D. G., & E.Schweitzer, M. (2008). How Personal Experience With Fine Influences Behavior. *Journal*. Retrieved 7 September 2009 from [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1270746](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1270746)
- Hashim, I. (1998, 19 Julai). Siber Kafe dan Celik Komputer. *Utusan Malaysia*,
- Haseloff, A. M. (2005). Cybercafes and Their Potential as Community Development Tools in India. *The Journal of Community Informatics*, 1(3).
- Hill, R. (1998). What Sample Size is Enough in Internet Survey Research. *Interpersonal Computing and Technology*, 6(3-4).
- Huguenard, B. R. (2008). The Impact of Students' Perceived Computer Experience on Behavior and Performance in an Introductory Information Systems Course. *Journal of Information Systems Education*, Spring.
- Hull, G. (2000). *An Introduction to Issues in Computer, Ethics and Policy*.
- IEEE. (2008). Sample Sizes. Retrieved 8 August, 2008, from <http://www.ieee.org/web/aboutus/research/sample.html>

- Illegal Internet cafes biting into business of legitimate cybercafés. (2010, May 2010). The Star.
- Influence of video games, TV on students worries Malaysian: Report (2005, February 10). Berita Harian.
- Jabatan Perangkaan Malaysia (2007), *Household Surevy 2007*. Kuala Lumpur: Percetakan Nasional Berhad.
- Jackson, S. L. (2008). *Research Methods and Statistics: A Critical Thinking Approach*. New York: Cengage Learning.
- Johan, M. (2001). Meeting the Challenges of Globalization in Education. *MIERScan*.
- Johnson, D. G. (1985). *Computer Ethics*. New Jersey: Prentice-Hall.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher*, 33(7), 14 -26.
- Jonathan (2008). Belief System - Part 1. *Journal*. Retrieved 5 September 2010, from <http://advancedlifefskill.com/blog>
- Kakoko, D. C. V. (2006). *Voluntary HIV Counselling and Testing Services Uptakes Among Primary School Teachers in Mwanza, Tanzania*. University of Bergen, Norway.
- Kamarudin, M. Y. (2007). Resposible Blogging. *e-security*, 11(Q2/2007), 10.
- Kaplan, B., & Dunchon, D. (1988). Combining Qualitative and Quantitative Methods in Information Systems Research: A Case Study. *MIS Quarterly*.
- Kebbati, K. (2001). *Dealing with Ethical Issiues in Technology Use in A Highschool Classroom*. Kansas State University.
- Kenneth S. Bordens, B. B. A. (2005). *Research And Design Methods A Process Approach* (Sixth Edition ed.) New York: McGraw-Hill.
- Kent, J. (2005, 10 November 2005). Malaysia gamers face night curfew. *BBC News*,
- Khosroupour, M. (2002). *Issues and Trends of Information Technology Management in Contemporary Organizations*: Idea Group Inc.
- Kizza, J. M. (2003). *Ethical and Social Issues in The Information Age*: New Jersey: Springer.

- Kontzer, T. (2003). Teen Ethics: Free is a Tough Habits for Kids to Break. *Information Week*,
- Lacey, A. (1995). *Maps of Philosophy*. Oxford University Press.
- Lallana, E. C. (2003). *The Information Age*: UNDP-APDIP.
- Langford, D. (1995). *Practical Computer Ethics*: England: McGraw Hill.
- Leonard, L. N. K., & Cronan, T. P. (2005). Attitude toward ethical behavior in computer use: a shifting model. *Industrial Management and Data System*, 105(9), 1150.
- Legal ethics. (2008, 4 Mei 2008). Retrieved 20 Jun 2008, from [http://en.wikipedia.org/wiki/Legal\\_ethics](http://en.wikipedia.org/wiki/Legal_ethics)
- Leonard, L. N. K., & Cronan, T. P. (2005). Attitude toward ethical behavior in computer use: a shifting model. *Industrial Management and Data System*, 105(9), 1150.
- Liff, S., & Laegran, A. S. (2003). Cybercafes: Debating the Meaning and Significance of Internet Access in a Cafe Environment. *New Media & Society*, 5(3), 307-312.
- Lin, T.-C., Hsu, M. H., Kuo, F.-Y., & Sun, P.-C. (1999). *An Intention Model-Based Study of Software Piracy*. Paper presented at the 32nd Hawaii International Conference on System Sciences, Hawaii.
- Mahmood, K. (2005, 10 February 2005). Influence of Vedio Games, TV on Students Worries Malaysians: Report. *Asia Media*.
- Malaysia, D. R. (2006). *Mesyuarat Dewan Rakyat* (No. DR.12.4.2006). Kuala Lumpur: PNB
- Malaysia, D. R. (2006). *Mesyuarat Dewan Rakyat*. Kuala Lumpur: PNB
- Malaysia, U. (2005, 27 July 2005). 90% Pelajar Sekolah Layari Laman Lucuh. *Utusan Malaysia*,
- Malaysia, U. (2007, 12 November 2007). Jangan buang masa di kafe siber,
- Malone, D. (1993). The Ethical Issues of Automated Information Processing. *Journal of Computer Information System*.
- Maner, W. (1996). Unique Ethical Problems in Information Technology. *Journal of Sciences and Engineering*, 2(2).

- Maslin Masrom, Zuraini Ismail, Rashidah Nural Anuar, Ramlah Ahmad, Norshidah Hussein. (2010). Exploring Computer Ethics Issues in Malaysia. *Issues in Information System*, 9(1).
- Matthews, J. (2000, 10 Oktober 2000). Malaysian Cybercafes Could Be Banned. *ZDNet News*
- MCMC. (2008). Retrieved 3 July 2009 from <http://www.ktak.gov.my>
- MCMC. (2010). Retrieved 10 February from <http://www.ktak.gov.my>
- Medical Ethics. (2008, 28 Jun 2008). Retrieved 4 July 2008, from [http://en.wikipedia.org/wiki/Medical\\_ethics](http://en.wikipedia.org/wiki/Medical_ethics)
- Membuang masa di kafe siber. (2005, January 20). Utusan Malaysia.
- Ming, L. S. (2002). *Impacts of Internet Addiction on Youths in Hong Kong*. University of Hong Kong, Hong Kong.
- Mingers, J. (2001). Combining IS Research Methods: Towards a Pluralist Methodology. *Information System Research*, 12(3), 240 -259.
- Mirchandani, D., & Motwani, J. (2003). Reducing Internet Abuse in the Workplace. *SAM Advanced Management Journal*, 68(1), 22.
- Moral Philosophy. (2008). Retrieved 19 Jun, 2008, from <http://www.moralphilosophy.info>
- Muijs, D. (2004). *Doing Quantitative Research in Education with SPSS*. London: Sage Publications.
- Nnafie, I. (2002). *Internet Cafes in Dar es Salaam: Problem and Opportunities*. Eindhoven University of Technology.
- Null, R. (2001, 21 Jun 2001). Malaysia Considers Cafe Rules. *Wired*,
- Odabasi, H. F. (2005). Parent's Views On Internet Use. *The Turkish Online Journal of Educational Technology*, 4(1)
- Odabasi, H. F., & Kuzu, E. B. (2008). *A Proposal for Ethical Training in Internet Cafes*. Paper presented at the 7th International Conference on Education and Educational Technology.
- Operasi khas jom ke sekolah kesan pelajar lepak di kafe siber. (2007, November 2). Berita Harian.

- Payne, D., & Landry, B. J. L. (2006). A Uniform Code of Ethics. Business and IT Professional Ethics. *Communications of The ACM*, 49(11).
- Peace, A. G., Galleta, D. F., & Thong, J. Y. L. (2003). Software Piracy in the Workplace: A Model and Empirical Test. *Journal of Management Information System*, 20(1), 153-177.
- Peslak, A. R. (2008). Current Information Technology Issues and the Moral Intensity Influences. *The Journal of Computer Information System*, 48(4).
- Petter, S. C., & Gallivan, M. J. (2004). *Towards a Framework for Classifying and Guiding Mixed Method Research in Information Systems*. Paper presented at the International Conference on System Science.
- Phukan, S. (2002). *IT Ethics in the Internet Age: New Dimensions*. Paper presented at the Informing Science.
- Phukan, S. (2005). Using Information Technology Ethically: New Dimensions in the Age of the Internet. *The Business Review, Cambridge*, 4(1).
- Punch, K. (2000). *Developing Effective Research Proposals*. New York: Sage Publications.
- Punch, K. F. (Ed.). (2003). *Survey Research. The Basic*. California: Mc Graw Hill.
- Pusat Komuniti. (2008, 19 August 2008). *Berita Harian*, from [www.bharian/Tuesday/Rencana/20080819084448/Article/index-html](http://www.bharian/Tuesday/Rencana/20080819084448/Article/index-html)
- Rahman, H. A. (2007, 31 Oktober 2007). Curi duit untuk ke kafe siber. *Harian Metro*,
- Ramayah, T., & Leen, J. Y. A. (1985). Internet Addiction Among University Students.
- Rangaswamy, N. (2007). *ICT for Development and Commerce: A Case Study of Internet Cafes in India* Paper presented at the International Conference on Social Implications of Computer in Developing Countries, Sao Paulo, Brazil.
- Rathore, A. S., & Alhabshi, S. M. (2005). A Case of Urban Cyber Cafes in Malaysia. [Newsletter of IFIP Working Group]. 15(1).
- Ray, J. (1982). Survey Research and Attitude Measurement. Retrieved 9 August, 2008, from <http://jonjayray.tripod.com/stat.html>
- Research Methods Glossary. (2000). Retrieved 6 August, 2008, from <http://www.bath.ac.uk/e-learning/gold/glossary.html>

- Rocco, T. S., Bliss, L. A., Gallagher, S., & Perez-Prado, A. (2003). Taking the Next Step: Mixed Methods Research in Organizational Systems. *Information Technology, Learning and Performance*, 21(1).
- Ross, J. (1999). Ways of Approaching Research: Quantitative Designs. *Journal*. Retrieved from <http://www.fortunecity.com/greenfield/grizzly/432/rra2.htm>
- Roscoe, J. T. (1975). *Fundamental Research Statistic for the Behavioral Research*. New York: Holt Rinehart & Winston.
- Salvador, T., Sherry, J. W., & Urrutia, A. E. (2003). Less Cyber, More Cafe. *Intel Corporation*.
- Sandvig, C. (2006). The Internet at Play: Child Users of Public Internet Connections. *Journal of Computer-Mediated Communication*, 11(4).
- Sawyer, S. (2000). *Studying Organizational Computing Infrastructures: Multi-Method Approaches*. Paper presented at the IFIP Working Conference.
- Sawyer, W. (2005). *Using Information And Communication Technology*. New York: McGraw-Hill.
- Sekaran, U. (2000). *Research Methods For Business: A Skill-Building Approach*: John Wiley & Sons.
- Sekaran, U., & Bougie, R. (2009). *Research Methods for Business: A Skill Building Approach*. New Jersey: Wiley Publisher.
- Shanks, G. (2002). Guidelines For Conducting Positivist Case Study Research Information Systems. *Australian Journals of Information Systems*.
- Sherratt, D., Rogerson, S., & Fairwaether, N. B. (2005). The Challenge of Raising Ethical Awareness: A Case-Based Aiding System for Use by Computing and ICT Students. *Journal of Sciences and Engineering Ethics*, 11, 299-315.
- Siber Kafe: Atasi pelajar ponteng. (2005, Disember 24). Utusan Malaysia.
- Syahirah Abdul Shukor, (2006). *Protecting Children's Rights in the Internet: Challenges A Preliminary Study Based on the Malaysian Experience*. Paper presented at the 21st BILETA Conference: Globalisation and Harmonisation in Technology Law, Malta.
- Sivanathan. (2006). Regulating Cyber Cafe Operations. *e-Security (Malaysian Cyber Security Agency)*, 9.



- Spinello, R. A. (2001). Code and Moral Values in Cyberspace. *Ethics and Information Technology*, 3(2), 137.
- Stanford Encyclopedia of Philosophy. (2001, 14 August 2001). Retrieved 22 July 2007, from <http://plato.stanford.edu/>
- Statistical Survey. (2008). Retrieved 6 August, 2008, from [http://en.wikipedia.org/wiki/Statistical\\_survey](http://en.wikipedia.org/wiki/Statistical_survey)
- Star, T. (2000, 24th January). The Steps to Monitor Cybercafes, Says Lam Thye. *The Star*.
- Stewart, J. (1999). Cafematics: The Cybercafe and The Community. [Research Report].
- Subramaniam, S. (2006). Regulating Cyber Cafe Operation. *e-security*, 9(Q4/2006), 16.
- Sulaiman, S., & Alias, R. A. (2006). *Information Ethics in Malaysia Paperless Hospital*. Paper presented at the Postgraduate Annual Research Seminar.
- Survey Methods. (2008). Retrieved 12 July 2008 from <http://www.utexas.edu/~palmquis/courses/survey.html>
- Suruhanjaya Syarikat Malaysia. (2007). *Statistic on Cyber Cafe*.
- Tashakkori, A., & Teddie, C. (2003). *Handbook of Mixed Methods in Social & Behavioral Research*. California: Sage Publications.
- Tellis, W. (1997). Application of a Case Study Methodology. *Journal*, 3(3). Retrieved 3 Jun 2007 from <http://www.nova.edu/ssss/QR/QR3-3/tellis2.html>
- Thomas, R. M. (2003). *Blending Qualitative & Quantitative Research Methods in Theses and Dissertations*. California: Corwin Press.
- Trevino, L. K. (1986). Ethical Decision Making in Organizations: A Person-Situation Interactionist Model. *Academy of Management Review*, 11(3), 601-617.
- Turner, B. D., & Elwork, A. (2009). Constitutional Kombot: Psychological Evidence Used to Restrict Video Game Violence. *Journal of Forensic Psychology*, 108-129.
- Unit Perancang Ekonomi, Jabatan Perdana Menteri (2001). Kuala Lumpur: PNB
- Unit Perancang Ekonomi, Jabatan Perdana Menteri (2006). Kuala Lumpur: PNB
- Unit Perancang Ekonomi, Jabatan Perdana Menteri (2010). Kuala Lumpur: PNB.

- Wahid, F., Furuholt, B., & Kristiansen, S. (2006). Internet for Development? Patterns of Use Among Internet cafe customers in Indonesia. *Information Development*, 22(4).
- Walliman, N. S. R. (2006). *Social Research Methods*. London: Sage Publications.
- Wasik, M. (2008). Computer Misuse and Misconduct in Public Office. *International Review of Law Computer and Technology*, 22(1).
- Wheeler, D. L. (2003). The Internet and Youth Subculture in Kuwait. *Journal of Computer-Mediated Communication*, 8(2).
- Wong, P. W. (2006). *A Study of Business Ethical Practices in Australian Organizations - A Multiple Case Study*. Unpublished Degree of Doctor of Business Administration, Southern Cross University, Australia.
- Woodson, B. (2002). *Student Use of the Internet and Their Attitudes on Computer Ethic, with Regards to Internet Use*. Texas State University, Texas.
- Wu, Y. (2007). *Implications of Case Study Research in Information Systems in Supply Chain Management*. Paper presented at the 16th EDAMBA Summer Academy, Soreze, France.
- Yassin, Y., & Yunos, Z. (2006). Ethics in Information Society. *e-security*, 9(Q4/2006), 23.
- Yıldız, Mete, Türksel Kaya-Bensghir and Ayhan Çankaya (2003) "Using Internet Cafés as An Alternative Means of Combatting The Digital Divide", paper presented at the Conference, titled as Public Administration: Challenges of Inequality and Exclusion, organized by International Association of Schools and Institutes of Administration in September 14-18, 2003, in Miami-USA.
- Yin, R. K. (2003). *Case Study Research Design and Methods* (Third Edition ed. Vol. 5). London: SAGE Publications.
- Yunos, Z., & Sajidah, S. (2005). Keeping Kids Safe On-line. *e-security*, 4(Q3/2005), 16.
- Yusof, F., Abraham, C., & Peters, M. (2008). *A Study On The Laws of Malaysia to Accomodate Legal Challenges in The Cyber Environment*.
- Zin, A. N. M., & Yunos, Z. H. (2005, 12 July 2005). Mitigating Negative Content on The Net. *The Star In Tech*.
- Zin Yunos & Sharifah Sajidah. (2005). Keeping Kids Safe On-line. *e-security*, 4(Q3/2005), 16.
- 144 ponteng kena cekup., Harian, B. (2007, November 2). *Berita Harian*